

1.Design Rule Check (DRC)

➤ *It is a process that verify the board adheres to the rules and constraints intended.*

How:

- ✓ Point to point checking.
- ✓ Start comp to end comp connection.

2. Signal Integrity (SI) CONSTRAINT RULES and GUIDELINES

➤ *To secure and maintain the quality and reliability of all high-speed connection.*

How:

- ✓ Check signal via (P/N), and via usage.
- ✓ Stitching GND via if present.

3. SOV CHECK

➤ *To avoid broken and maintain the consistency of the connection.*

How:

- i. Add edit property to selected nets
- ii. Select SOV Check option
- iii. Then OK
- iv. Select Setup
- v. User preferences
- vi. Display
- vii. Seg_Over_Void
- viii. Put required void value
- ix. Display
- x. Segment Over Void
- xi. Highlight

*NOTE: After modifying the error, all the highlight SOV on the net will disappear so need to re-run again the SOV Check.

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3. HIGH-SPEED spacing from PWR Connection

- *To make sure that both signal have stable connection and avoid uninterrupted quality.*

How:

- ✓ Route high-speed as far as possible to the power connection
- ✓ Can add RKO in between to avoid overlapping.

4. ROUTING TYPE

a) 45 Degree

- *To minimize signal reflection and preserve the signal waveform.*

b) 10 Degree

- *To mitigate Fiber Weave Effect and keep the timing accuracy.*

c) Arc Routing

- *To eliminate discontinuities and create the smoothest possible transition.*

4. ROUTING TYPE

How:

- ✓ Using Skill (diffTool.il).
- ✓ Using Allegro Function.
 - Add connect command
 - Slide command
 - AICCC

5. ARC ROUTING CHECKING

➤ *To reassure the high-speed meet and comply the SI guidelines.*

How:

✓ Using ***Vision Manger***

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6. EQUAL LENGTH (EQL)

➤ *To maximize the transmission distance and data rate.*

How:

- ✓ EQL thru EQL Table
- ✓ EQL thru CONSTRAINT MANAGER

6. EQL thru EQL TABLE

How:

- ✓ Manually encoded
- ✓ Run using DAT

7. EQL thru CONSTRAINT MANAGER

How:

- ✓ Timing Vision
- ✓ Dynamic Phase
- ✓ Static Phase
- ✓ Group Matching

8. EQL SHEET COLOR and NAMING

- ❖ *Retain the sheet name and ADD date & name; if possible ADD “D” for DAYSHIFT and “N” for NIGHTSHIFT.*
- ✓ *GREEN means DONE*
- ✓ *RED means EXCEEDED*
- ✓ *YELLOW means CONTINUE*

9. ANTIPAD/ ROUTE KEEPOUT (RKO)

➤ *To prevent other connection overlap on some critical area.*

How:

✓ Using Skill (AddAntiEtchOnViaAndComp.il).

10. FIXED ONCE DONE EQL

- *To avoid being moved or misaligned.*
- *To prevent mismatched EQL value.*